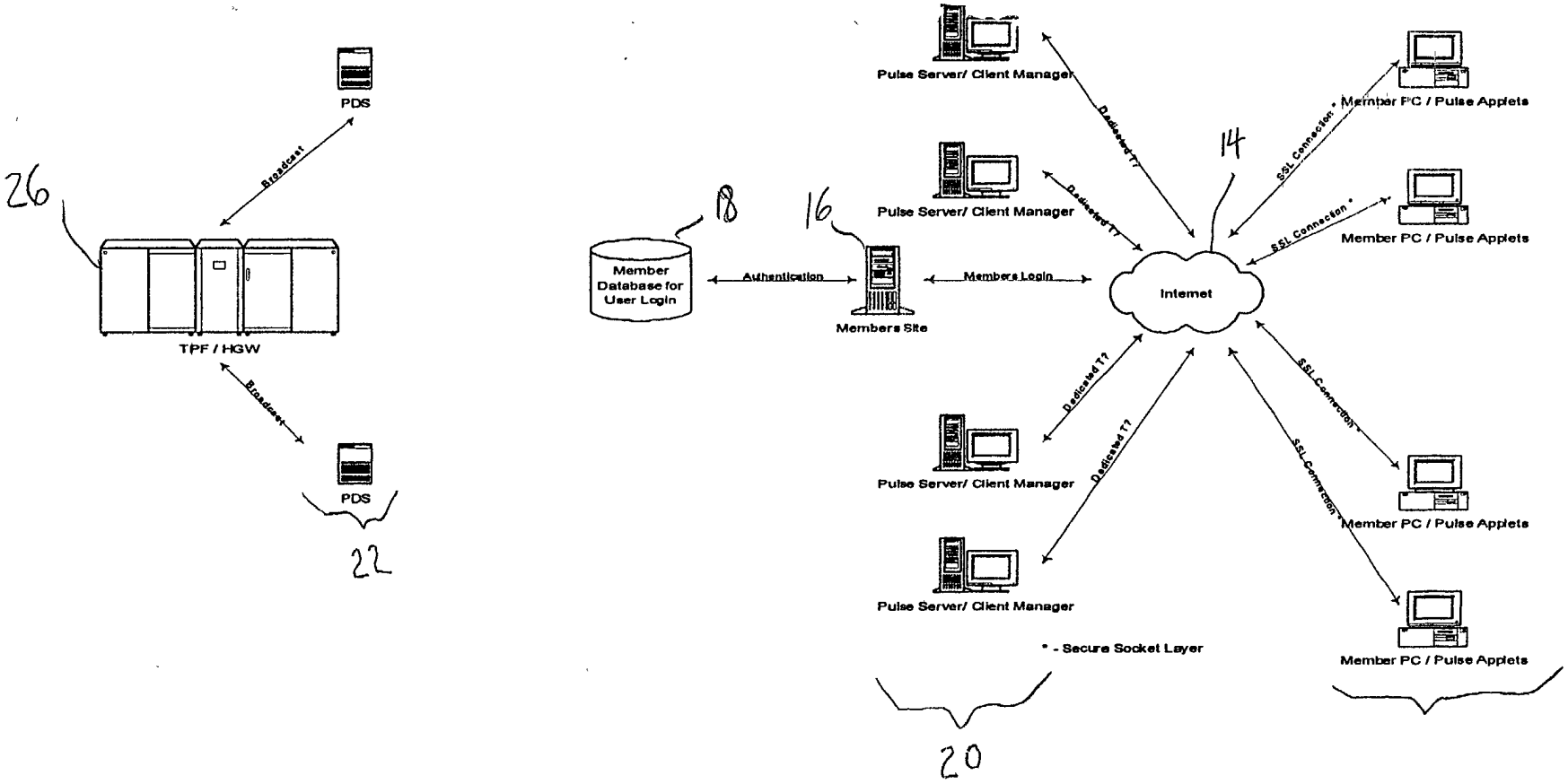
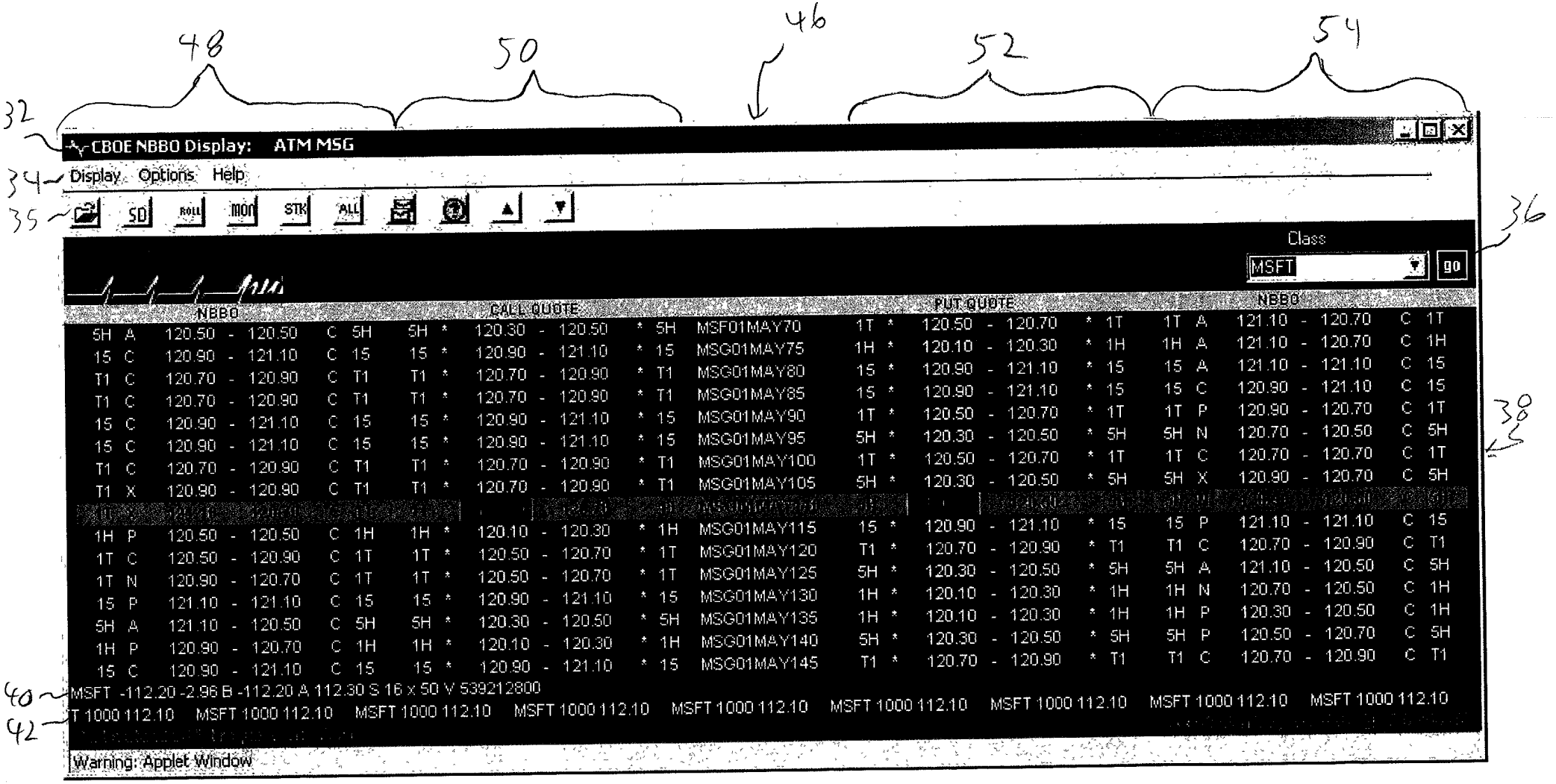

10
PDS
Broadcast
26
TPF / HGW
Broadcast
PDS
22
Pulse Server/ Client Manager
Pulse Server/ Client Manager
Pulse Server/ Client Manager
Pulse Server/ Client Manager
Dedicated T?
Dedicated T?
Dedicated T?
Dedicated T?
14
Internet
18
Member Database for User Login
Authentication
16
Members Site
Members Login
SSL Connection *
SSL Connection *
SSL Connection
SSL Connection
Member PC / Pulse Applets
Member PC / Pulse Applets
Member PC / Pulse Applets
Member PC / Pulse Applets
* - Secure Socket Layer
20
12

Fig. 1


48
50
46
52
54
32
CBOE NBBO Display: ATM MSG
34
Display Options Help
35
SD
ROLL
MON
STK
ALL
36
Class
MSFT
go
38
NBBO
CALL QUOTE
PUT QUOTE
NBBO
5H A 120.50 - 120.50 C 5H 5H * 120.30 - 120.50 * 5H MSF01MAY70 1T * 120.50 - 120.70 * 1T 1T A 121.10 - 120.70 C 1T
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01MAY75 1H * 120.10 - 120.30 * 1H 1H A 121.10 - 120.70 C 1H
T1 C 120.70 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSG01MAY80 15 * 120.90 - 121.10 * 15 15 A 121.10 - 121.10 C 15
T1 C 120.70 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSG01MAY85 15 * 120.90 - 121.10 * 15 15 C 120.90 - 121.10 C 15
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01MAY90 1T * 120.50 - 120.70 * 1T 1T P 120.90 - 120.70 C 1T
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01MAY95 5H * 120.30 - 120.50 * 5H 5H N 120.70 - 120.50 C 5H
T1 C 120.70 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSG01MAY100 1T * 120.50 - 120.70 * 1T 1T C 120.70 - 120.70 C 1T
T1 X 120.90 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSG01MAY105 5H * 120.30 - 120.50 * 5H 5H X 120.90 - 120.70 C 5H
1H P 120.50 - 120.50 C 1H 1H * 120.10 - 120.30 * 1H MSG01MAY115 15 * 120.90 - 121.10 * 15 15 P 121.10 - 121.10 C 15
1T C 120.50 - 120.90 C 1T 1T * 120.50 - 120.70 * 1T MSG01MAY120 T1 * 120.70 - 120.90 * T1 T1 C 120.70 - 120.90 C T1
1T N 120.90 - 120.70 C 1T 1T * 120.50 - 120.70 * 1T MSG01MAY125 5H * 120.30 - 120.50 * 5H 5H A 121.10 - 120.50 C 5H
15 P 121.10 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01MAY130 1H * 120.10 - 120.30 * 1H 1H N 120.70 - 120.50 C 1H
5H A 121.10 - 120.50 C 5H 5H * 120.30 - 120.50 * 5H MSG01MAY135 1H * 120.10 - 120.30 * 1H 1H P 120.30 - 120.50 C 1H
1H P 120.90 - 120.70 C 1H 1H * 120.10 - 120.30 * 1H MSG01MAY140 5H * 120.30 - 120.50 * 5H 5H P 120.50 - 120.70 C 5H
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01MAY145 T1 * 120.70 - 120.90 * T1 T1 C 120.70 - 120.90 C T1
40
MSFT -112.20 -2.96 B -112.20 A 112.30 S 16 x 50 V 539212800
42
T 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10
Warning: Applet Window

30

Figure 2

FIG.3

Examples

46

## At The Money

**Enter in a stock symbol or option class and it will display the stock with the ATM class and series centered on the screen.**

IBM
00JUN75
00JUN80
00JUN85
00JUN90
00JUN95
00JUN100
00JUN105
00JUN110 ⇐ ATM SERIES
00JUN115
00JUN120
00JUN125
00JUN130
00JUN135
00JUN140
00JUN145
00JUN150
00SEP75

Exhibit 1004, page 46 of 59

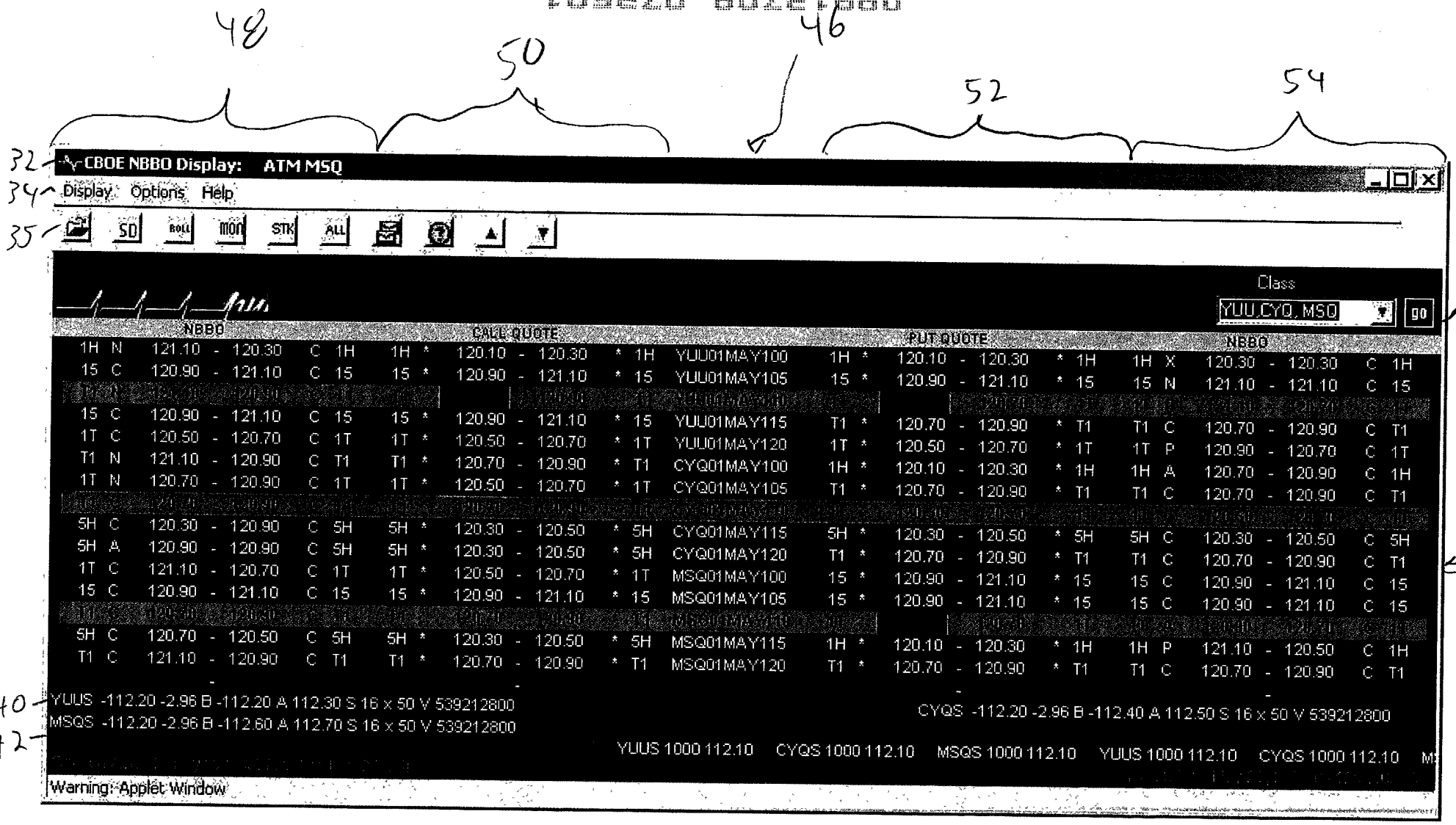

48
50
46
52
54
32
CBOE NBBO Display: ATM MSQ
34
Display Options Help
35
SD ROLL MON STK ALL
Class
YUU,CYQ, MSQ
go
36
NBBO
CALL QUOTE
PUT QUOTE
NBBO
1H N 121.10 - 120.30 C 1H 1H * 120.10 - 120.30 * 1H YUU01MAY100 1H * 120.10 - 120.30 * 1H 1H X 120.30 - 120.30 C 1H
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 YUU01MAY105 15 * 120.90 - 121.10 * 15 15 N 121.10 - 121.10 C 15
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 YUU01MAY115 T1 * 120.70 - 120.90 * T1 T1 C 120.70 - 120.90 C T1
1T C 120.50 - 120.70 C 1T 1T * 120.50 - 120.70 * 1T YUU01MAY120 1T * 120.50 - 120.70 * 1T 1T P 120.90 - 120.70 C 1T
T1 N 121.10 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 CYQ01MAY100 1H * 120.10 - 120.30 * 1H 1H A 120.70 - 120.90 C 1H
1T N 120.70 - 120.90 C 1T 1T * 120.50 - 120.70 * 1T CYQ01MAY105 T1 * 120.70 - 120.90 * T1 T1 C 120.70 - 120.90 C T1
5H C 120.30 - 120.90 C 5H 5H * 120.30 - 120.50 * 5H CYQ01MAY115 5H * 120.30 - 120.50 * 5H 5H C 120.30 - 120.50 C 5H
5H A 120.90 - 120.90 C 5H 5H * 120.30 - 120.50 * 5H CYQ01MAY120 T1 * 120.70 - 120.90 * T1 T1 C 120.70 - 120.90 C T1
1T C 121.10 - 120.70 C 1T 1T * 120.50 - 120.70 * 1T MSQ01MAY100 15 * 120.90 - 121.10 * 15 15 C 120.90 - 121.10 C 15
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSQ01MAY105 15 * 120.90 - 121.10 * 15 15 C 120.90 - 121.10 C 15
5H C 120.70 - 120.50 C 5H 5H * 120.30 - 120.50 * 5H MSQ01MAY115 1H * 120.10 - 120.30 * 1H 1H P 121.10 - 120.50 C 1H
T1 C 121.10 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSQ01MAY120 T1 * 120.70 - 120.90 * T1 T1 C 120.70 - 120.90 C T1
38
40
YUUS -112.20 -2.96 B -112.20 A 112.30 S 16 x 50 V 539212800
CYQS -112.20 -2.96 B -112.40 A 112.50 S 16 x 50 V 539212800
42
MSQS -112.20 -2.96 B -112.60 A 112.70 S 16 x 50 V 539212800
YUUS 1000 112.10 CYQS 1000 112.10 MSQS 1000 112.10 YUUS 1000 112.10 CYQS 1000 112.10
Warning: Applet Window
64

Fig 4

TOS20 60276660

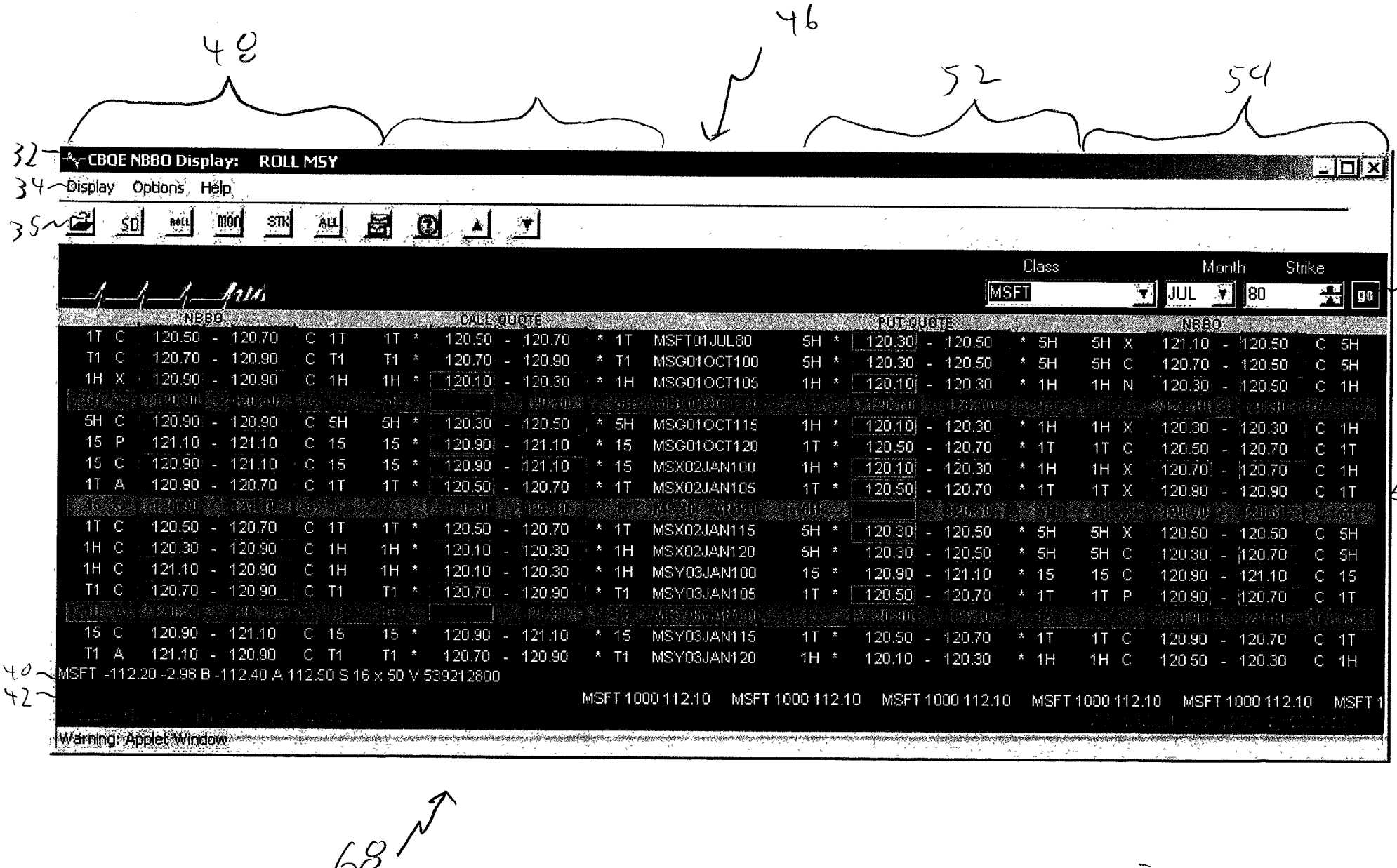



Fig 5

FIG. 6

## Roll Page

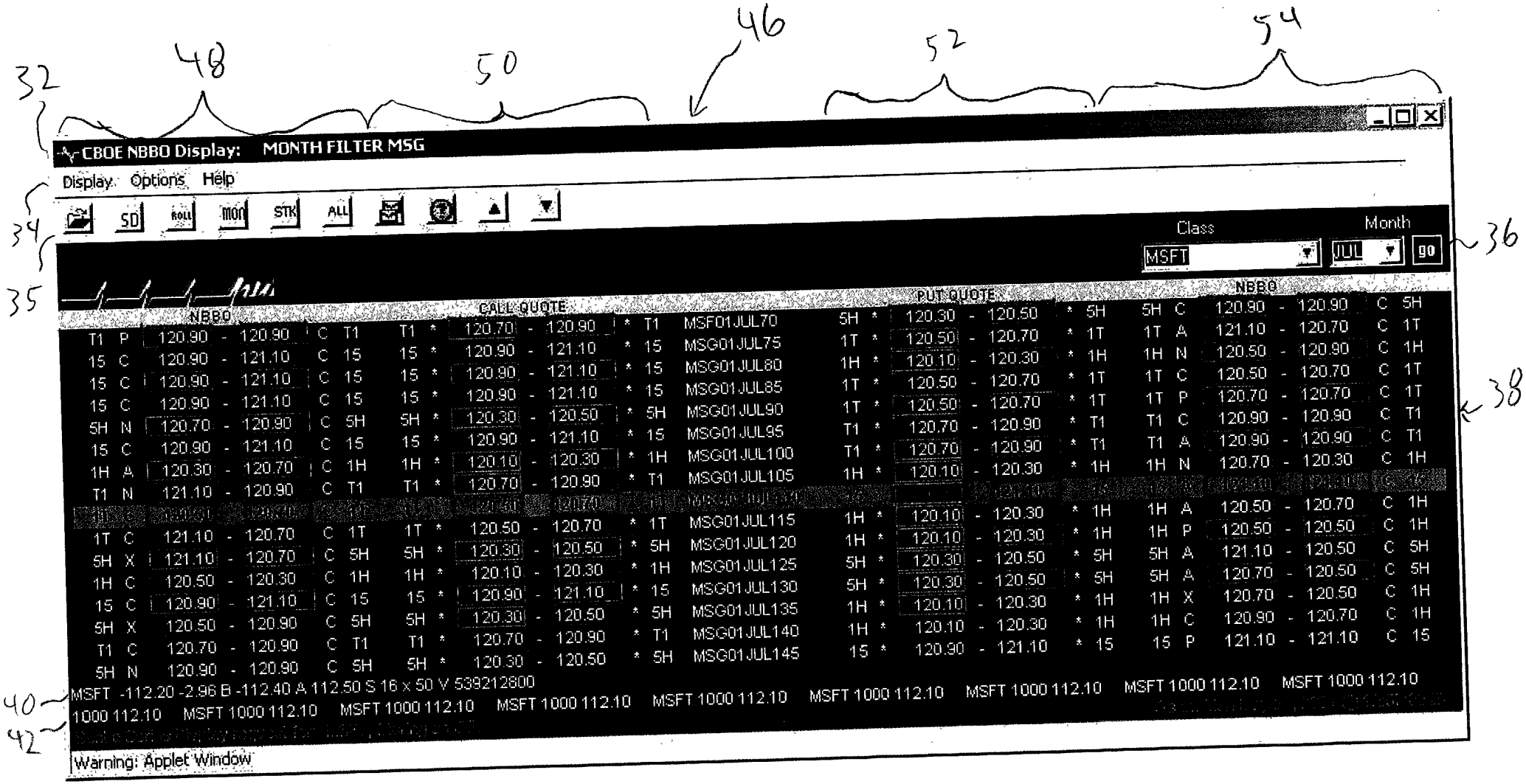
Enter a stock symbol, month, and strike and the display would show that series that was entered, then the next month ATM strikes(2 In-the-Money, the At-the-Money, and 2 Out-of-the-Money series). Input: IBM JUN 110

IBM
00JUN110
00SEP100
00SEP105
00SEP110
00SEP115
00SEP120
00DEC100
00DEC105
00DEC110
00DEC115
00DEC120
WIB
01FEB100
01FEB105
01FEB110
01FEB115
01FEB120

46

## Month Page

Enter a stock or option symbol and a month


32
48
50
46
52
54
CBOE NBBO Display: MONTH FILTER MSG
Display Options Help
SD ROLL MON STK ALL
Class
Month
MSFT
JUL
go
34
35
36
38
NBBO
CALL QUOTE
PUT QUOTE
NBBO
T1 P 120.90 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSF01JUL70 5H * 120.30 - 120.50 * 5H 5H C 120.90 - 120.90 C 5H
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUL75 1T * 120.50 - 120.70 * 1T 1T A 121.10 - 120.70 C 1T
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUL80 1H * 120.10 - 120.30 * 1H 1H N 120.50 - 120.90 C 1H
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUL85 1T * 120.50 - 120.70 * 1T 1T C 120.50 - 120.70 C 1T
5H N 120.70 - 120.90 C 5H 5H * 120.30 - 120.50 * 5H MSG01JUL90 1T * 120.50 - 120.70 * 1T 1T P 120.70 - 120.70 C 1T
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUL95 T1 * 120.70 - 120.90 * T1 T1 C 120.90 - 120.90 C T1
1H A 120.30 - 120.70 C 1H 1H * 120.10 - 120.30 * 1H MSG01JUL100 T1 * 120.70 - 120.90 * T1 T1 A 120.90 - 120.90 C T1
T1 N 121.10 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSG01JUL105 1H * 120.10 - 120.30 * 1H 1H N 120.70 - 120.30 C 1H
1T C 121.10 - 120.70 C 1T 1T * 120.50 - 120.70 * 1T MSG01JUL115 1H * 120.10 - 120.30 * 1H 1H A 120.50 - 120.70 C 1H
5H X 121.10 - 120.70 C 5H 5H * 120.30 - 120.50 * 5H MSG01JUL120 1H * 120.10 - 120.30 * 1H 1H P 120.50 - 120.50 C 1H
1H C 120.50 - 120.30 C 1H 1H * 120.10 - 120.30 * 1H MSG01JUL125 5H * 120.30 - 120.50 * 5H 5H A 121.10 - 120.50 C 5H
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUL130 5H * 120.30 - 120.50 * 5H 5H A 120.70 - 120.50 C 5H
5H X 120.50 - 120.90 C 5H 5H * 120.30 - 120.50 * 5H MSG01JUL135 1H * 120.10 - 120.30 * 1H 1H X 120.70 - 120.50 C 1H
T1 C 120.70 - 120.90 C T1 T1 * 120.70 - 120.90 * T1 MSG01JUL140 1H * 120.10 - 120.30 * 1H 1H C 120.90 - 120.70 C 1H
5H N 120.90 - 120.90 C 5H 5H * 120.30 - 120.50 * 5H MSG01JUL145 15 * 120.90 - 121.10 * 15 15 P 121.10 - 121.10 C 15
40
MSFT -112.20 -2.96 B -112.40 A 112.50 S 16 x 50 V 539212800
42
1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10
Warning: Applet Window

72

Figure 7

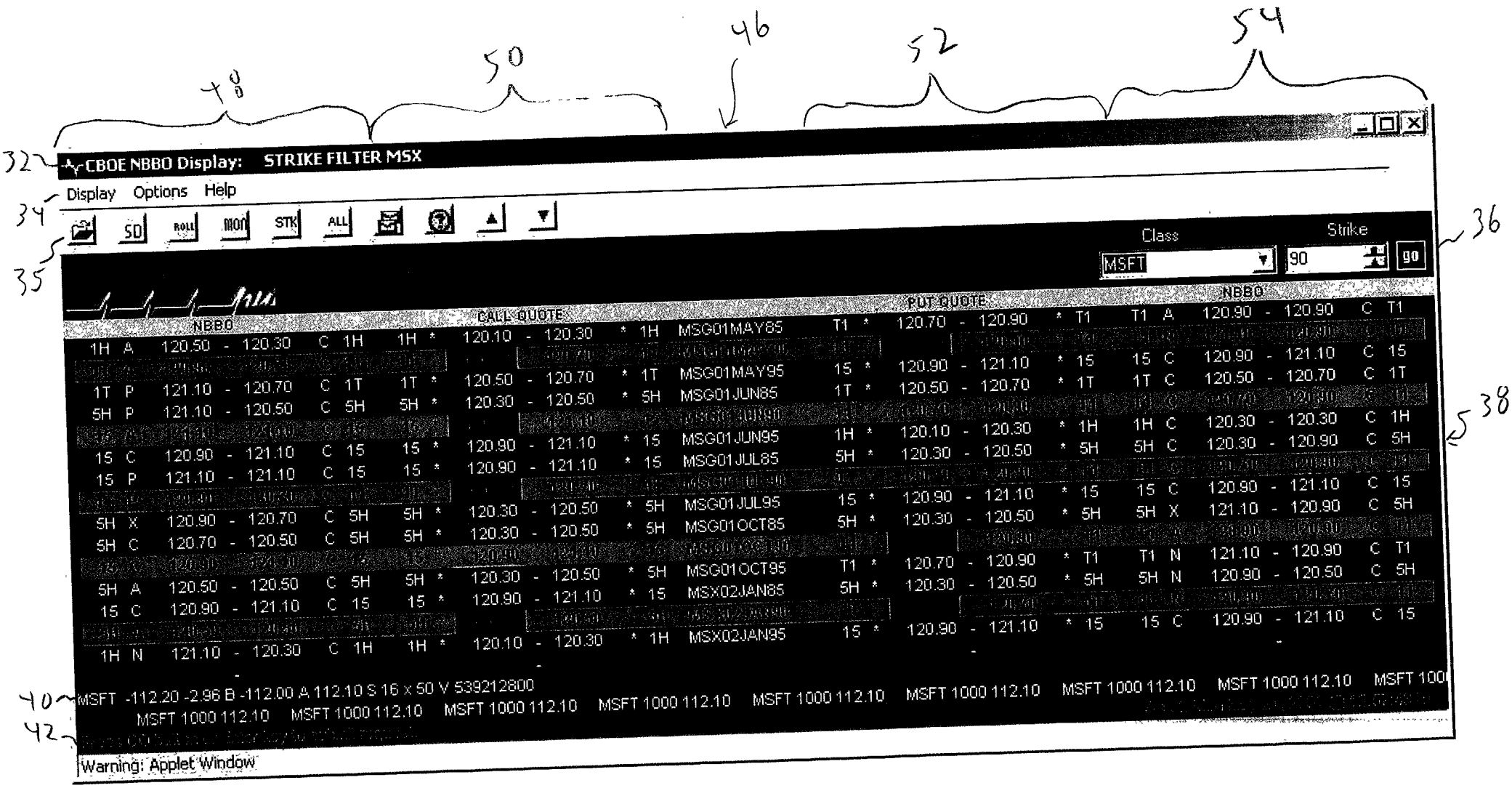

48
50
46
52
54
32
CBOE NBBO Display: STRIKE FILTER MSX
Display Options Help
34
SD ROLL MON STK ALL
35
Class
Strike
MSFT
90
go
36
38
NBBO
CALL QUOTE
PUT QUOTE
NBBO
1H A 120.50 - 120.30 C 1H 1H * 120.10 - 120.30 * 1H MSG01MAY85 T1 * 120.70 - 120.90 * T1 T1 A 120.90 - 120.90 C T1
1T P 121.10 - 120.70 C 1T 1T * 120.50 - 120.70 * 1T MSG01MAY95 15 * 120.90 - 121.10 * 15 15 C 120.90 - 121.10 C 15
5H P 121.10 - 120.50 C 5H 5H * 120.30 - 120.50 * 5H MSG01JUN85 1T * 120.50 - 120.70 * 1T 1T C 120.50 - 120.70 C 1T
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUN95 1H * 120.10 - 120.30 * 1H 1H C 120.30 - 120.30 C 1H
15 P 121.10 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSG01JUL85 5H * 120.30 - 120.50 * 5H 5H C 120.30 - 120.90 C 5H
5H X 120.90 - 120.70 C 5H 5H * 120.30 - 120.50 * 5H MSG01JUL95 15 * 120.90 - 121.10 * 15 15 C 120.90 - 121.10 C 15
5H C 120.70 - 120.50 C 5H 5H * 120.30 - 120.50 * 5H MSG01OCT85 5H * 120.30 - 120.50 * 5H 5H X 121.10 - 120.90 C 5H
5H A 120.50 - 120.50 C 5H 5H * 120.30 - 120.50 * 5H MSG01OCT95 T1 * 120.70 - 120.90 * T1 T1 N 121.10 - 120.90 C T1
15 C 120.90 - 121.10 C 15 15 * 120.90 - 121.10 * 15 MSX02JAN85 5H * 120.30 - 120.50 * 5H 5H N 120.90 - 120.50 C 5H
1H N 121.10 - 120.30 C 1H 1H * 120.10 - 120.30 * 1H MSX02JAN95 15 * 120.90 - 121.10 * 15 15 C 120.90 - 121.10 C 15
40
MSFT -112.20 -2.96 B -112.00 A 112.10 S 16 x 50 V 539212800
MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 1000 112.10 MSFT 100
42
Warning: Applet Window
74

Figure 8

FIG. 9

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Symbol IBM -E Display P Puts/Calls Zero Volume Issues
Use Page Up, Page Down, ↑, ↓

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| IBM | N L ↑ | 99.26 | Chg | +3.86 | B N | 99.17 | A O | 99.19 | S 12x2 | Vlm | 8524000 |
| M | 2:35 Opn | 94.00 | H | 99.68 | Lo | 93.97 | AH | 134.93 | AL 80.06 | LTV | 1000 |
| | C | 95.40 | EPS | 4.44 | PE | 22.36 | Div | 0.52 | Yld 0.52 | Ex | 2/07/01 |

| Y/M/S | Root | CALLS | L | Chg | B | A | PUTS | L | Chg | B | A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Apr65.00E | IBM | DM↓ | 25.50 | pc | 34.20 | 35.00 | PM↓ | 0.15 | -0.15 | 0.10 | 0.20 |
| Apr70.00E | IBM | DN↑ | 29.30 | +8.30 | 29.30 | 30.10 | PN↓ | 0.25 | -0.30 | 0.15 | 0.35 |
| Apr75.00E | IBM | DO↑ | 35.00 | pc | 24.50 | 25.30 | PO↓ | 0.50 | -0.40 | 0.45 | 0.60 |
| Apr80.00E | IBM | DP↑ | 20.00 | +4.50 | 19.90 | 20.60 | PP↓ | 0.75 | -0.60 | 0.65 | 0.90 |
| Apr85.00E | IBM | DQ↑ | 16.00 | +3.70 | 15.40 | 16.10 | PQ↑ | 1.35 | -0.95 | 1.25 | 1.30 |
| Apr90.00E | IBM | DR↓ | 11.40 | +3.30 | 11.20 | 11.80 | PR↓ | 2.15 | -1.45 | 2.00 | 2.15 |
| Apr95.00E | IBM | DS↑ | 8.00 | +2.60 | 7.70 | 8.10 | PS↓ | 3.40 | -2.10 | 3.20 | 3.50 |
| Apr100.0E | IBM | DT↑ | 4.80 | +1.60 | 4.80 | 5.20 | PT↓ | 5.30 | -3.30 | 5.30 | 5.70 |
| Apr105.0E | IBM | DA↑ | 2.90 | +1.30 | 2.75 | 3.00 | PA↑ | 8.70 | -3.10 | 8.20 | 8.70 |
| Apr110.0E | IBM | DB↓ | 1.50 | +0.70 | 1.45 | 1.60 | PB↑ | 12.60 | -3.60 | 11.90 | 12.50 |
| Apr115.0E | IBM | DC↓ | 0.80 | +0.30 | 0.70 | 0.80 | PC↓ | 18.00 | -3.50 | 16.20 | 16.80 |
| Apr120.0E | IBM | DD↑ | 0.40 | +0.20 | 0.30 | 0.50 | PD↓ | 25.00 | pc | 20.70 | 21.40 |
| Apr125.0E | IBM | DE↑ | 0.20 | +0.05 | 0.15 | 0.25 | PE↓ | 26.40 | -7.60 | 25.50 | 26.20 |
| Apr130.0E | IBM | DF↑ | 0.10 | -- | 0.05 | 0.20 | PF↑ | 29.30 | pc | 30.40 | 31.10 |
| Apr135.0E | IBM | DG↑ | 0.10 | pc | 0.00 | 0.15 | PG↓ | 42.87 | pc | 35.40 | 36.10 |
| Apr140.0E | IBM | DH↑ | 0.10 | pc | 0.00 | 0.15 | PH↑ | 25.50 | pc | 40.40 | 41.10 |
| Apr145.0E | IBM | DI↓ | 0.05 | pc | 0.00 | 0.15 | PI↑ | 24.12 | pc | 45.40 | 46.10 |
| Apr150.0E | IBM | DJ↓ | 0.10 | pc | 0.00 | 0.10 | PJ↑ | 55.00 | pc | 50.40 | 51.10 |
| Apr155.0E | IBW | DK↓ | 0.05 | pc | 0.00 | 0.10 | PK↑ | 37.62 | pc | 55.40 | 56.10 |

Exhibit 1003 Page 0015

FIG. 10

RSEARCH3 03/27/2001 14:41 Page 1

Symbol IBM -E Display X Puts/Calls Zero Volume Issues
Use Page Up, Page Down, ↑, ↓
IBM N L ↑ 99.21 Chg +3.81 B N 99.07 A O 99.30 S 35x1 Vlm 8660700
N 2:41 Opn 94.00 H 99.68 Lo 93.97 AH 134.93 AL 80.06 LTV 500
C 95.40 EPS 4.44 PE 22.34 Div 0.52 Yld 0.52 Ex 2/07/01

| Y/M/S | Root | L | Chg | B | A | H | Lo | OpI | Vlm | T |
|---|---|---|---|---|---|---|---|---|---|---|
| Apr65.00Ec | IBM DM↑A | 25.50 | pc | 34.10 | 34.90 | 0.00 | 0.00 | 2237 | 0 | 3/19 |
| Apr70.00Ec | IBM DN↑A | 29.30 | +8.30 | 29.30 | 30.10 | 29.30 | 29.30 | 529 | 1 | 1:27 |
| Apr75.00Ec | IBM DO↑A | 35.00 | pc | 24.50 | 25.30 | 0.00 | 0.00 | 376 | 0 | 1/18 |
| Apr80.00Ec | IBM DP↑A | 20.00 | +4.50 | 19.80 | 20.50 | 20.00 | 18.40 | 1737 | 25 | 12:38 |
| Apr85.00Ec | IBM DQ↑A | 16.00 | +3.70 | 15.40 | 16.10 | 16.00 | 14.80 | 969 | 30 | 2:16 |
| Apr90.00Ec | IBM DR↑A | 11.70 | +3.60 | 11.20 | 11.70 | 11.80 | 8.40 | 6196 | 323 | 2:39 |
| Apr95.00Ec | IBM DS↑A | 8.00 | +2.60 | 7.70 | 8.10 | 8.30 | 5.00 | 9082 | 1633 | 2:41 |
| Apr100.0Ec | IBM DT↓A | 4.70 | +1.50 | 4.70 | 5.10 | 5.20 | 2.75 | 13788 | 1824 | 2:41 |
| Apr105.0Ec | IBM DA↓A | 2.75 | +1.15 | 2.70 | 3.00 | 3.00 | 1.55 | 13397 | 661 | 2:38 |
| Apr110.0Ec | IBM DB↓ | 1.50 | +0.70 | 1.45 | 1.60 | 7.00 | 0.85 | 16834 | 803 | 2:37 |
| Apr115.0Ec | IBM DC↓A | 0.80 | +0.30 | 0.70 | 0.80 | 0.85 | 0.40 | 14755 | 276 | 1:18 |
| Apr120.0Ec | IBM DD↑ | 0.40 | +0.20 | 0.35 | 0.40 | 0.40 | 0.25 | 19185 | 82 | 1:12 |
| Apr125.0Ec | IBM DE↑A | 0.20 | +0.05 | 0.15 | 0.25 | 0.20 | 0.20 | 9195 | 13 | 1:09 |
| Apr130.0Ec | IBM DF↑ | 0.10 | -- | 0.05 | 0.20 | 0.10 | 0.10 | 6772 | 12 | 1:57 |
| Apr135.0Ec | IBM DG↑A | 0.10 | pc | 0.00 | 0.15 | 0.00 | 0.00 | 2620 | 0 | 3/21 |
| Apr140.0Ec | IBM DH↑ | 0.10 | pc | 0.00 | 0.15 | 0.00 | 0.00 | 1740 | 0 | 3/23 |
| Apr145.0Ec | IBM DI↓A | 0.05 | pc | 0.00 | 0.15 | 0.00 | 0.00 | 495 | 0 | 3/21 |
| Apr150.0Ec | IBM DJ↓A | 0.10 | pc | 0.00 | 0.10 | 0.00 | 0.00 | 3746 | 0 | 2/26 |
| Apr155.0Ec | IBW DK↓A | 0.05 | pc | 0.00 | 0.10 | 0.00 | 0.00 | 483 | 0 | 2/22 |

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FIG. 11



Symbol IBM -E Display 3 Puts/Calls Zero Volume Issues
Use Page Up, Page Down, ↑, ↓

IBM N L ↓ 99.08 Chg +3.68 B N 99.08 A N 99.15 S 3x13 Vlm 8540400
O 2:36 Opn 94.00 H 99.68 Lo 93.97 AH 134.93 AL 80.06 LTV 100
C 95.40 EPS 4.44 PE 22.32 Div 0.52 Yld 0.52 Ex 2/07/01

| S | Root | Apr | L | B | A | May | L | B | A | Jul | L | B | A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100.0Ep | IBM | PT↓ | 5.30 | 5.30 | 5.70 | QT↓ | 7.50 | 7.20 | 7.60 | ST↑ | 10.30 | 9.70 | 10.30 |
| 105.0Ep | IBM | PA↑ | 8.70 | 8.30 | 8.80 | QA↑ | 10.50 | 9.90 | 10.40 | SA↓ | 13.00 | 12.30 | 12.90 |
| 110.0Ep | IBM | PB↑ | 12.60 | 12.00 | 12.60 | QB↑ | 14.80 | 13.20 | 13.70 | SB↓ | 15.50 | 15.40 | 16.10 |
| 115.0Ep | IBM | PC↓ | 18.00 | 16.20 | 16.80 | QC↓ | 18.30 | 17.10 | 17.70 | SC↓ | 20.20 | 18.90 | 19.50 |
| 120.0Ep | IBM | PD↓ | 25.00 | 20.80 | 21.50 | QD↓ | 0.00 | 21.30 | 21.90 | SD↓ | 26.90 | 22.70 | 23.40 |
| 125.0Ep | IBM | PE↓ | 26.40 | 25.60 | 26.30 | QE↓ | 0.00 | 25.90 | 26.50 | SE↑ | 26.40 | 26.90 | 27.60 |
| 130.0Ep | IBM | PF↑ | 29.30 | 30.50 | 31.20 | QF↓ | 0.00 | 30.60 | 31.30 | SF↓ | 17.30 | 31.30 | 32.10 |
| 135.0Ep | IBM | PG↓ | 42.87 | 35.50 | 36.20 | QG↓ | 0.00 | 35.50 | 36.20 | SG↑ | 45.40 | 35.90 | 36.70 |
| 140.0Ep | IBM | PH↑ | 25.50 | 40.50 | 41.20 | QH↓ | 0.00 | 40.50 | 41.20 | SH↑ | 48.20 | 40.60 | 41.40 |
| 145.0Ep | IBM | PI↑ | 24.12 | 45.50 | 46.20 | QI↓ | 0.00 | 45.50 | 46.20 | | | | |
| 150.0Ep | IBM | PJ↑ | 55.00 | 50.50 | 51.20 | QJ↓ | 0.00 | 50.50 | 51.20 | | | | |
| 155.0Ep | IBW | PK↑ | 37.62 | 55.50 | 56.20 | | | | | | | | |
| 160.0Ep | IBW | PL↑ | 48.12 | 60.50 | 61.20 | | | | | | | | |
| 165.0Ep | IBW | PM↑ | 48.75 | 65.50 | 66.20 | | | | | | | | |
| 170.0Ep | IBW | PN↓ | 0.00 | 70.50 | 71.20 | | | | | | | | |

Exhibit 1034 - Page 16 of 16

FIG. 12

IBM US $ ↓ 99.11 +3.71 T 2s Equity OCM

DELAY 14:41 Vol 8,745,466 Op 94 M Hi 99.68 T Lo 93.97 T ValTrd 854.586m

OPTION MONITOR 2 COMP Center: 99.01 1 <GO> to Edit Spreadsheet

| BID | dASK | d | IVBD | IVAS | DEBD | GABD | | BID | dASK | d | IVBD | IVAS | DEBD | GABD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bid Price | Ask Price | | Imp Volat Bid | Imp Volat Ask | Delta Bid | Gamma Bid | IBM US <-CALLS PUTS-> | Bid Price | Ask Price | | Imp Volat Bid | Imp Volat Ask | Delta Bid | Gamma Bid |
| | | | | | | | IBM APR1 | | | | | | | |
| 34.50 | 35.00 | | 91.81 | 112.93 | .970 | .0028 | 1 65 | .05 | .25 | | 69.86 | 88.91 | -.008 | .0012 |
| 29.50 | 30.30 | | 77.24 | 104.72 | .966 | .0037 | 2 70 | .20 | .35 | | 72.48 | 80.49 | -.027 | .0033 |
| 24.90 | 25.30 | | 77.77 | 88.12 | .931 | .0066 | 3 75 | .50 | .55 | | 72.53 | 74.11 | -.059 | .0062 |
| 20.20 | 20.60 | | 70.13 | 78.19 | .898 | .0098 | 4 80 | .55 | .85 | | 60.38 | 67.77 | -.075 | .0090 |
| 15.80 | 16.10 | | 65.31 | 69.94 | .840 | .0144 | 5 85 | 1.15 | 1.35 | | 58.83 | 62.14 | -.140 | .0146 |
| 11.50 | 11.90 | | 57.98 | 62.93 | .765 | .0204 | 6 90 | 1.85 | 2.15 | | 53.71 | 56.29 | -.222 | .0214 |
| 7.90 | 8.20 | | 54.35 | 57.47 | .649 | .0263 | 7 95 | 3.10 | 3.40 | | 48.87 | 51.98 | -.343 | .0291 |
| 4.90 | 5.20 | | 50.56 | 53.46 | .505 | .0304 | 8 100 | 5.20 | 5.70 | | 46.46 | 51.30 | -.502 | .0333 |
| 2.80 | 3.00 | | 48.48 | 50.54 | .353 | .0296 | 9 105 | 7.90 | 8.40 | | 41.90 | 47.17 | -.680 | .0337 |
| 1.50 | 1.65 | | 47.59 | 49.50 | .224 | .0243 | 10 110 | 11.60 | 12.10 | | 36.75 | 48.42 | -.856 | .0262 |
| .75 | .85 | | 47.10 | 48.88 | .129 | .0173 | 11 115 | 15.70 | 16.50 | | N.A. | 46.89 | N.A. | N.A. |
| .35 | .50 | | 46.77 | 50.74 | .069 | .0109 | 12 120 | 20.30 | 21.10 | | N.A. | 44.88 | N.A. | N.A. |
| .10 | .25 | | 43.42 | 50.81 | .025 | .0051 | 13 125 | 25.20 | 26.00 | | N.A. | 45.33 | N.A. | N.A. |
| .05 | .30 | | 44.93 | 59.53 | .013 | .0028 | 14 130 | 30.20 | 31.00 | | N.A. | 51.69 | N.A. | N.A. |
| | .30 | | N.A. | 66.00 | N.A. | N.A. | 15 135 | 35.20 | 36.00 | | N.A. | 57.66 | N.A. | N.A. |
| | .30 | | N.A. | 72.11 | N.A. | N.A. | 16 140 | 40.20 | 41.00 | | N.A. | 63.33 | N.A. | N.A. |
| | .30 | | N.A. | 77.89 | N.A. | N.A. | 17 145 | 45.20 | 46.00 | | N.A. | 68.81 | N.A. | N.A. |

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FIG, 13

IBM US $ ↑ 99.31 +3.91 B 5s Equity OCM

DELAY 14:44 Vol 8,825,966 Op 94 M Hi 99.68 T Lo 93.97 T ValTrd 863.183m

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| | | BID | dASK | dLAST | d1CHG | dIVBD | IVAS | BEST | DEBS | GABS | VEBS | THEO | ?DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IBM US CALLS | | Bid Price | Ask Price | Last Trade | 1 Day Net Change | Imp Volat Bid | Imp Volat Ask | Best Price | Delta Best Price | Gamma Best Price | Vega Best Price | Theo. Value | ? Day Decay |
| IBM APR1 | | | | 99.310 | +3.910 | | | 99.26 | | | | | |
| 1) | 65 | 34.50 | 35.30 | 29.70 | unch | 69.96 | 115.08 | 34.50 | .992 | .0012 | .006 | 34.453 | .0910 |
| 2) | 70 | 29.70 | 30.50 | 29.30 | +8.30 | 80.15 | 98.27 | 29.80 | .963 | .0039 | .021 | 29.483 | .2576 |
| 3) | 75 | 24.90 | 25.70 | 19.20 | unch | 73.65 | 85.00 | 25.00 | .941 | .0061 | .031 | 24.562 | .3406 |
| 4) | 80 | 20.20 | 20.90 | 20.50 | +4.20 | 69.58 | 77.82 | 20.50 | .896 | .0097 | .047 | 19.778 | .5130 |
| 5) | 85 | 15.70 | 16.40 | 16.00 | +3.70 | 58.37 | 71.34 | 16.00 | .844 | .0141 | .062 | 15.278 | .6273 |
| 6) | 90 | 11.50 | 12.10 | 11.80 | +3.20 | 58.09 | 61.84 | 11.80 | .766 | .0199 | .080 | 11.251 | .7452 |
| 7) | 95 | 7.90 | 8.20 | 8.00 | +2.60 | 51.59 | 56.82 | 8.00 | .657 | .0264 | .096 | 7.862 | .8187 |
| 8) | 100 | 5.00 | 5.40 | 5.10 | +1.90 | 49.33 | 53.19 | 5.10 | .513 | .0299 | .104 | 5.202 | .8422 |
| 9) | 105 | 2.85 | 3.10 | 2.90 | +1.25 | 48.07 | 50.63 | 2.90 | .361 | .0297 | .097 | 3.258 | .7302 |
| 10) | 110 | 1.55 | 1.60 | 1.50 | +.70 | 47.50 | 48.14 | 1.55 | .229 | .0246 | .079 | 1.935 | .5499 |
| 11) | 115 | .75 | .85 | .75 | +.35 | 46.51 | 48.28 | .75 | .130 | .0176 | .056 | 1.092 | .3504 |
| 12) | 120 | .40 | .45 | .40 | +.15 | 47.66 | 48.97 | .40 | .076 | .0115 | .038 | .587 | .2238 |
| 13) | 125 | .10 | .25 | .25 | +.10 | 43.01 | 50.34 | .25 | .048 | .0077 | .027 | .302 | .1562 |
| 14) | 130 | .05 | .30 | .10 | unch | 44.55 | 59.07 | .10 | .022 | .0041 | .014 | .149 | .0717 |
| 15) | 135 | | .30 | .05 | unch | N.A. | 65.54 | .05 | .012 | .0024 | .008 | .071 | .0388 |
| 16) | 140 | | .30 | .10 | unch | N.A. | 71.66 | .10 | .019 | .0029 | .012 | .033 | .0736 |
| 17) | 145 | | .30 | .05 | unch | N.A. | 77.45 | .05 | .010 | .0017 | .007 | .015 | .0395 |

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